Product Data Sheet

Product Name: NSC-87877 disodium
Cat. No.: GC65542

Chemical Properties

Cas. No.	56932-43-5		
Formula	C19H11N3Na2O7S2	M.Wt	503.42
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	NSC-87877 disodium		

Background

The Src homology region 2 domain-containing phosphatases (SHP) known as SHP-1 and SHP-2 act downstream of receptor and non-receptor tyrosine kinase to modulate signal transduction.[1] NSC 87877 is a cell-permeable, inhibitor of both SHP-1 and SHP-2 (IC_{50} = 355 and 318 nM, respectively).[1] It is much less effective against other protein tyrosine phosphatases and the dual-specificity phosphatase 26.[1,2] Through its effects on SHP-1 or SHP-2, NSC 87877 blocks epidermal growth factor receptor-induced activation of Ras and ERK1/2 in HEK293 cells, stimulates store-operated calcium entry in response to thrombin in platelets, and increased acetylcholine receptor clustering in myotubes.[1,3,4]

1.Chen, L., Sung, S.S., Yip, M.L.R., et al.Discovery of a novel Shp2 protein tyrosine phosphatase inhibitorMol. Pharmacol.70(2)562-570(2006) 2.Song, M., Park, J.E., Park, S.G., et al.NSC-87877, inhibitor of SHP-1/2 PTPs, inhibits dual-specificity phosphatase 26 (DUSP26)Biochem. Biophys. Res. Commun.381(4)491-495(2009) 3.Redondo, P.C., Harper, A.G.S., Harper, M.T., et al.hTRPC1-associated α-actinin, and not hTRPC1 itself, is tyrosine phosphorylated during human platelet activationJ. Thromb. Haemost.5(12)2478-2483(2007) 4.Zhao, X.T., Qian, Y.K., Chan, A.W.S., et al.Regulation of ACh receptor clustering by the tyrosine phosphatase Shp2Dev. Neurobiol.67(13)1789-1801(2007)

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